

PATENT CLAIMS

1. A ceramic filter element (10) for cleaning water, comprising a tubular body, which is formed by at least one wall (11) and at least one through opening (12) extending along the entire length of the tubular body, the at least one wall (11) being implemented as a functional layer or as a carrier having a functional coating, wherein the water to be filtered, flows under pressure either from the outer surface (18) into the through opening (12) or via the inner surface (17) of the through opening (12) to the outer surface (18) of the ceramic filter element (10), characterized in that the ceramic filter element (10) is installed in a housing which has a water outlet (22) and, preferably on an open first end (13) of the through opening (12), a water inlet (21), the housing having a closure screw (23) which closes an open second end (14) of the through opening (12).
2. The ceramic filter element according to claim 1, characterized in that the ceramic filter element (10) is implemented as a rod-shaped element which is circular in cross-section, having multiple through openings (12).
3. The ceramic filter element according to claim 1 or 2, characterized in that the ceramic filter element (10) is produced, via a sintering process, from chemical compounds selected from the group consisting of chalcogenides, preferably oxides and/or sulfides and/or carbides and/or nitrides.

4. The ceramic filter element according to any one of claims 1 through 3, characterized in that the tubular body of the ceramic filter element (10) is enclosed by an activated carbon filter element (30).
5. The ceramic filter element according to any one of claims 1 through 4, characterized in that the ceramic filter element (10) has a mouthpiece.
6. The ceramic filter element according to one of claims 1 through 5, characterized in that the housing is formed in multiple parts from a housing cover (19) and a housing body (20), the individual housing parts being removably connected to one another in a liquid-tight manner.
7. The ceramic filter element according to claim 6, characterized in that attachments, preferably quick-acting closures, for coupling to fittings and/or hoses, may be attached and/or implemented on the housing cover (19) and/or on the housing body (20).
8. The ceramic filter element according to any one of claims 1 through 7, characterized in that the ceramic filter element (10) is formed from a coarse-pored carrier and a fine-pored functional coating.
9. The ceramic filter element according to any one of claims 1 through 8, characterized in that the ceramic filter element (10) is coated and/or treated with a biocidal material and/or a material containing silver ions.